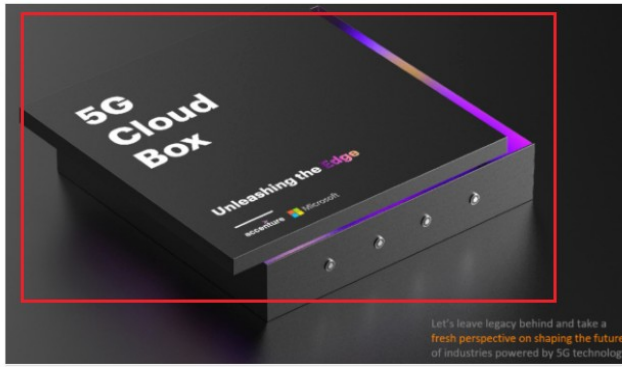
Exhibit 2

Charted claim:
Method claim:1

US8897263B2	Accenture 5G Cloud box (“The accused instrumentality”)
1. A method to maintain a communication session of an interactive application in a wireless network, comprising	The accused instrumentality discloses a method (e.g., session continuity management) to maintain a communication session (e.g., maintain session continuity) of an interactive application (e.g., applications/services for the UE) in a wireless network (5G network). Accenture 5G Cloud box supports 5G technology and its network functions such as SMF (session management function) and Session and Service Continuity (SSC). 5G standard has been developed by the 3GPP. As per 3GPP standard TS 23.502, 5G supports multiple Session and Service Continuity (SSC) modes for applications (interactive application). One of the SSC modes, the SSC mode 3 enables session continuity without termination of the connection between the mobile device and the network. The service continuity with SSC mode 3 that uses the multi-homed PDU Session. In this case, the SMF (session management function) which is a key element in 5G network prepares a new PDU Session Anchor first and then notifies the UE of the existence of a new IP prefix. Thus, SSC mode 3 enables session continuity (e.g., maintain a communication session) without termination of the connection between the mobile device and the network (e.g., 5G wireless network). The **Accenture 5G Cloud Box** s a platform which allows easy development of applications which maximizes the benefits of 5G technology and can be tailored for specific enterprise needs https://www.accenture.com/content/dam/accenture/final/a-com-migration/manual/r3/pdf/Accenture-Telco-Cloud-Pager.pdf

	# Accenture 5G Cloud Box Quality Inspection Consulting Service Accenture On-premise Microsoft Private LTE/5G cellular network within a manufacturing site to deliver high speed, flexible connectivity to high-definition wireless cameras detecting real-time product defects. Product quality is one of the most important drivers for the success of an organization; however, employees do make mistakes and machines and equipment do have breakdowns which impact production quality. Hence, is necessary to implement an efficient quality inspection system in order to ensure that the delivered products meet the specifications required by the customer. Accenture 5G Cloud box is a private 5G network built on Azure private MEC integrated with both Azure Private 5G Core and Accenture's video analytics software to deliver real-time, low latency quality inspection. Quality inspection during the product manufacturing process ensures standardization and uniformity comparing product quality with the standards and specifications. Quality inspection also reduces manufacturing costs and rejection losses, and assigns causes to the production of a defective product.   https://azuremarketplace.microsoft.com/en/marketplace/consulting-services/accenture1628868945076.acn-soln-area-15-5g-cloud-box-quality-inspection?

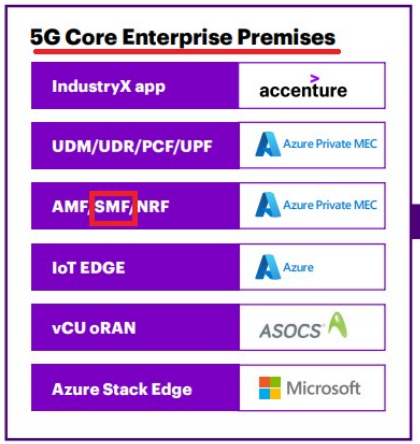
Accenture-Microsoft joint solution

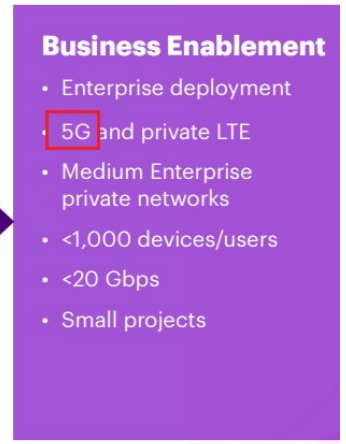
Accenture and Microsoft are collaborating to help enterprises maximize the value of their network and technology investments well into the future.

Accenture and Microsoft have partnered to jointly develop a pre-engineered Enterprise 5G Cloud Box.

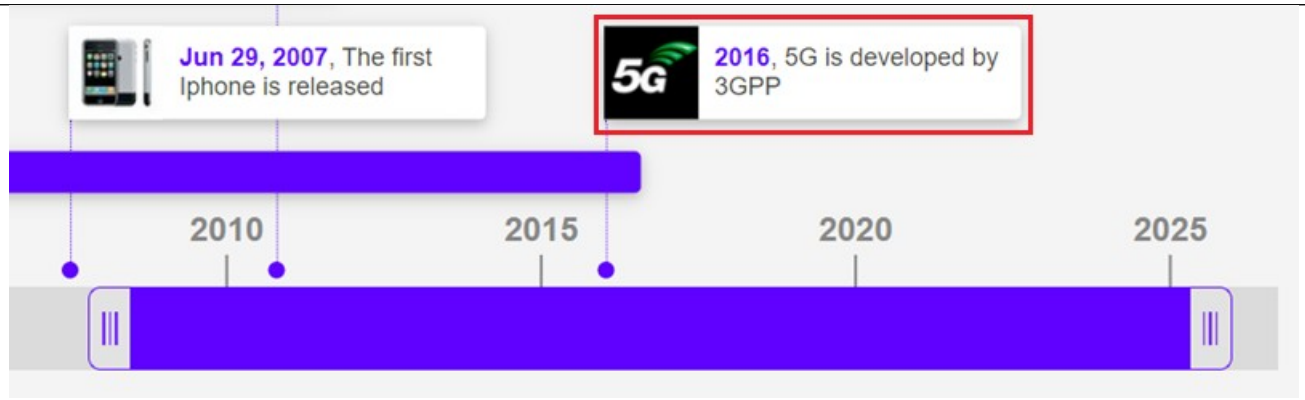
It leverages the core 5G SA products of Microsoft, Azure Private MEC , along with Accenture's Cloud Native Automation System (CNAS) to enable automation and data intelligence on network operations. Azure Private MEC is the evolution of the Affirmed and Metaswitch assets into an Azure first party product with enhanced integration to the Azure platform for security and lifecycle management.

This is a product for enterprise clients who need 5G connectivity in their premises and want a quick setup with a simple to use solution for managing the use cases enabled by 5G network slicing capabilities, thereby deriving a unique joint value proposition for our clients. The Edge Box has been developed in Accenture's Lab in Rome where the teams are jointly developing use cases to take to the market. Deployment of the 5G industry use cases on the Edge box have commenced in Accenture's Lab in Bangalore, operating on mid-band spectrum to design and validate the business relevant use cases of our clients.





https://www.accenture.com/content/dam/accenture/final/a-com-migration/manual/r3/pdf/Accenture-Telco-Cloud-Pager.pdf



https://www.timetoast.com/timelines/tech-timeline-28d57302-6b57-4911-adf2-d2e415520d9e

Simultaneously, standards bodies are working on universal 5G equipment standards. The 3rd Generation Partnership Project (3GPP) approved 5G New Radio (NR) standards in December 2017 and is expected to complete the 5G mobile core standard required for 5G cellular services. The 5G radio system is not compatible with 4G radios, but network operators that have purchased wireless radios recently may be able to upgrade to the new 5G system via software rather than buying new equipment.

https://www.techtarget.com/searchnetworking/definition/5G

Session Management Function (SMF):

The SMF is a key element in the 5G Core Network (5GC) architecture. It is responsible for session establishment, session management, and session termination for all data sessions in a 5G network. The SMF acts as the primary point of contact for the user equipment (UE) when establishing and managing data sessions.

Key Functions of V-SMF and SMF:

1. **Session Establishment:** V-SMF and SMF are responsible for establishing user data sessions, ensuring that the appropriate Quality of Service (QoS) and policy rules are applied based on the user's subscription and service requirements.
2. **Session Management:** During an active data session, V-SMF and SMF are responsible for monitoring and managing the session, including applying QoS adjustments, handling mobility-related tasks (e.g., handovers between cells), and ensuring session continuity as the user moves within the network.

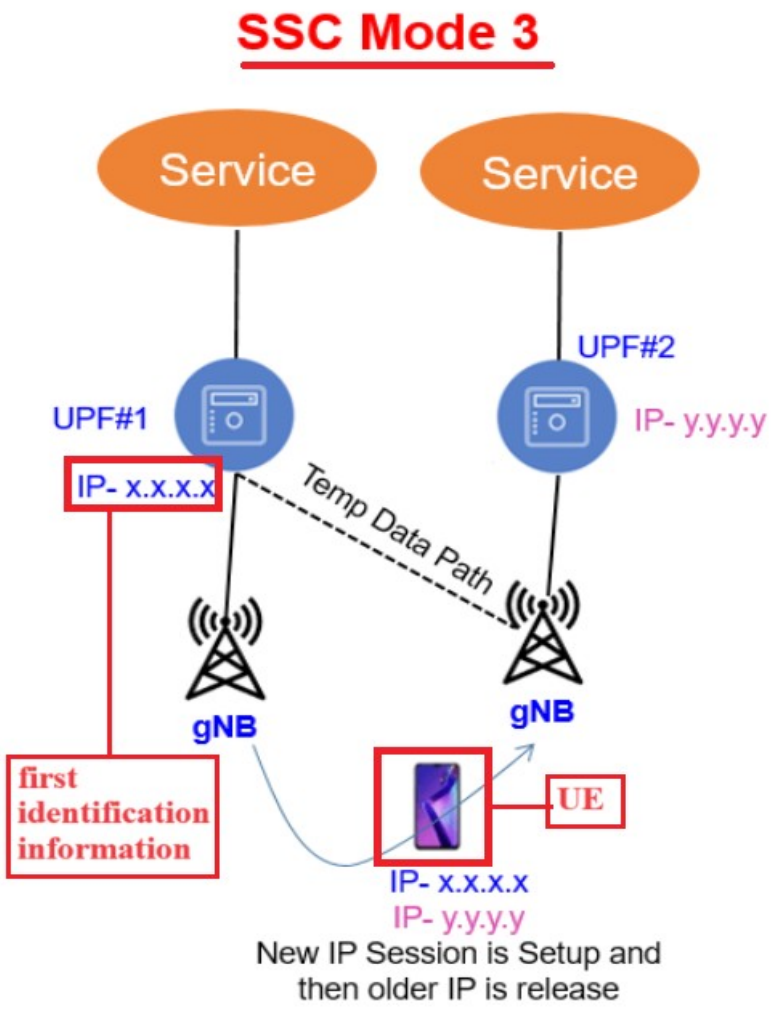
https://www.telecomtrainer.com/v-smf-visited-smf/

	In 5G, SMF stands for "Session Management Function." It is a core network element responsible for managing the sessions between user devices and the network. Section 6.2.2 of 3GPP's Technical Specification 23.501 provides a detailed description of the role and functions of SMF • SMF is one of the key network functions in the 5G Core Network (5GC), responsible for session management and policy control. https://techlteworld.com/smf-session-management-function-in-5g-nr/ • SMF provides session continuity management, which allows for the seamless transfer of a session from one network node to another. https://techlteworld.com/smf-session-management-function-in-5g-nr/ ▪ The **SMF** specifics the allocated mode using the '**Selected SSC Mode**' field within the **NAS: PDU Session Eslablishment Accept** ▪ **SSC Mode 1 & 2** can work for PDU Type as **IP and Ethernet** where as **SSC Mode 3** can be only work with PDU session type as **IP** https://www.techplayon.com/ssc-modes-session-and-service-continuity-in-5g/

	establishment request as "SSC mode" IE. In 5G Core, the SMF can recieve the list of supported **SSC modes** and the **default SSC mode** per **DNN** per **S-NSSAI** as part of the subscription information from the UDM. The SMF select the **SSC mode** by checking against **subscriber data** and local **SMF configuration** and allowed SSC mode. Based on selection results, the SMF can either accepts or modifies or rejects based on UE subscription or local configuration. If UE does not provide SSC, then SMF selects **default SSC** depending on the data network in **subscription** or local configuration. https://www.techplayon.com/ssc-modes-session-and-service-continuity-in-5g/ 4.3.5.3 Change of SSC mode 3 PDU Session Anchor with IPv6 Multi-homed PDU Session Clause 4.3.5.3 describes a procedure for service continuity with SSC mode 3 that uses the multi-homed PDU Session described in TS 23.501 [2] clause 5.6.4.3. In this case the SMF prepares a new PDU Session Anchor first and then notifies the UE of the existence of a new IP prefix, as depicted in figure 4.3.5.3-1. This procedure is applicable only to PDU Sessions of IPv6 type. https://www.etsi.org/deliver/etsi_ts/123500_123599/123502/15.02.00_60/ts_123502v150200p.pdf

	5.6.9 Session and Service Continuity 5.6.9.1 General The support for session and service continuity in 5G System architecture enables to address the various continuity requirements of different applications/services for the UE. The 5G System supports different session and service continuity (SSC) modes defined in this clause. The SSC mode associated with a PDU Session does not change during the lifetime of a PDU Session. The following three modes are specified with further details provided in the next clause: - With SSC mode 1, the network preserves the connectivity service provided to the UE. For the case of PDU Session of IPv4 or IPv6 or IPv4v6 type, the IP address is preserved. - With SSC mode 2, the network may release the connectivity service delivered to the UE and release the corresponding PDU Session. For the case of IPv4 or IPv6 or IPv4v6 type, the network may release IP address(es) that had been allocated to the UE. - With SSC mode 3, changes to the user plane can be visible to the UE, while the network ensures that the UE suffers no loss of connectivity. A connection through new PDU Session Anchor point is established before the previous connection is terminated in order to allow for better service continuity. For the case of IPv4 or IPv6 or IPv4v6 type, the IP address is not preserved in this mode when the PDU Session Anchor changes. https://www.etsi.org/deliver/etsi_ts/123500_123599/123501/15.02.00_60/ts_123501v150200p.pdf
determining a first identification information associated with a mobile device;	The accused instrumentality discloses determining a first identification information (e.g., old IP address/prefix) associated with a mobile device (e.g., UE). For PDU session of SSC mode 3, the network determines first anchor point and corresponding first IP address /prefix (“identification information”) associated with an IP PDU Session.

	5.6.9.2.3 SSC Mode 3 For PDU Session of SSC mode 3, the network allows the establishment of UE connectivity via a new PDU Session Anchor to the same data network before connectivity between the UE and the previous PDU Session Anchor is released. When trigger conditions apply, the network decides whether to select a PDU Session Anchor UPF suitable for the UE's new conditions (e.g. point of attachment to the network). In this Release of specification, SSC mode 3 only applies to IP PDU Session type and to any access type. In the case of a PDU Session of IPv4 or IPv6 or IPv4v6 type, during the procedure of change of PDU Session Anchor, the following applies: a. For a PDU Session of IPv6 type, the new IP prefix anchored on the new PDU Session Anchor may be allocated within the same PDU Session (relying on IPv6 multi-homing specified in clause 5.6.4.3), or b. The new IP address and/or IP prefix may be allocated within a new PDU Session that the UE is triggered to establish. After the new IP address/prefix has been allocated, the old IP address/prefix is maintained during some time indicated to the UE via NAS signalling (as described in TS 23.502 [3] clause 4.3.5.2) or via Router Advertisement (as described in TS 23.502 [3] clause 4.3.5.3) and then released. If a PDU Session of SSC mode 3 has multiple PDU Session Anchors (i.e., in the case of multi-homed PDU Sessions or in the case that UL CL applies to a PDU Session of SSC mode 3), the additional PDU Session Anchors may be released or allocated. https://www.etsi.org/deliver/etsi_ts/123500_123599/123501/15.02.00_60/ts_123501v150200p.pdf

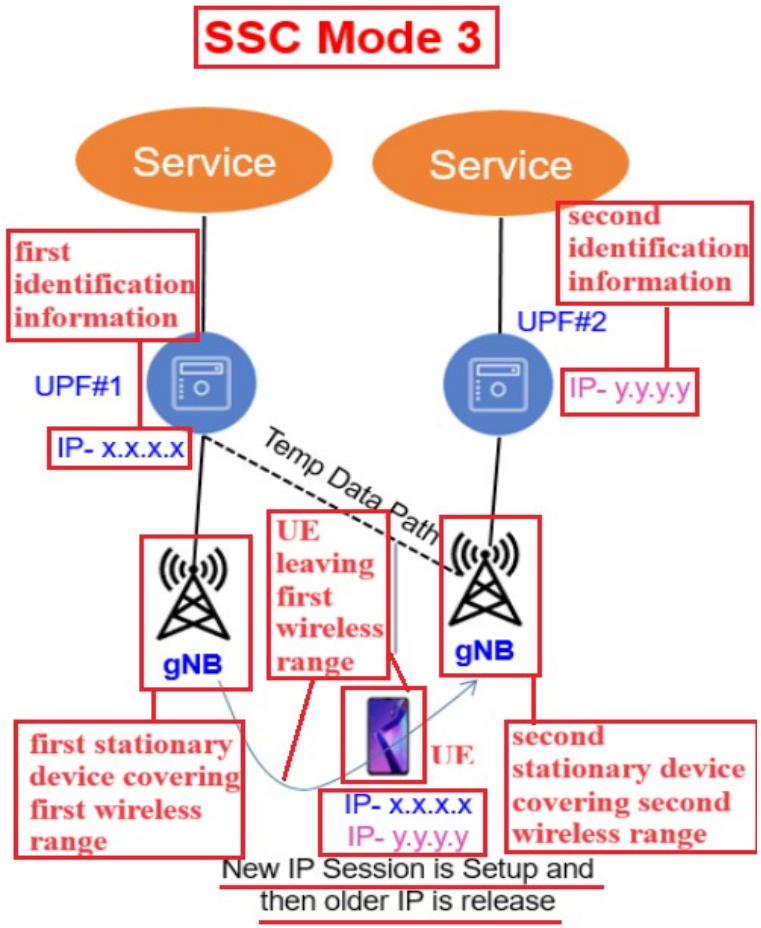


https://www.techplayon.com/ssc-modes-session-and-service-continuity-in-5g/

	▪ **SSC Mode 3:** With **SSC mode 3**, the network preserves the connectivity provided to the **UE** but there may be some impact during certain procedures. For example, the **IP address** allocated to the UE will be updated if the **Anchor UPF** changes but the change procedure will ensure that **connectivity** is preserved, i.e. connectivity towards the new Anchor UPF is established before releasing the connection to the **old Anchor UPF**. The **3GPP** release 15 only supports **Mode 3** for IP based **PDU Sessions**. https://www.techplayon.com/ssc-modes-session-and-service-continuity-in-5g/
in response to the mobile device leaving a first wireless range associated with the wireless network, accessing a second identification information associated with the first identification information, wherein the second identification information is assigned to the mobile device when the mobile device is in a second wireless range associated with the wireless network and registers itself to a	The accused instrumentality discloses in response to the mobile device (e.g., UE) leaving a first wireless range (e.g., UE leaving wireless range provided by first base station) associated with the wireless network (e.g., 5G network), accessing a second identification information (e.g., new IP address/prefix) associated with the first identification information (e.g., old IP address/prefix), wherein the second identification information (e.g., new IP address/prefix) is assigned to the mobile device (e.g., UE) when the mobile device (e.g., UE) is in a second wireless range (e.g., UE located in wireless range provided by second base station) associated with the wireless network (e.g., 5G network) and registers itself to a stationary device (e.g., connects to the second base station or new access point) covering the second wireless range (e.g., wireless range provided by second base station) . During the procedure of change of PDU Session Anchor, the network allows the establishment of UE connectivity via a new PDU Session Anchor to the same data network (5G network) before connectivity between the UE and the previous PDU Session Anchor is released. Further, in response to trigger conditions such as new point of attachment to the network i.e., UE connecting to new base station or new access point leaving first wireless range provided by first base station or first access point, the 5G

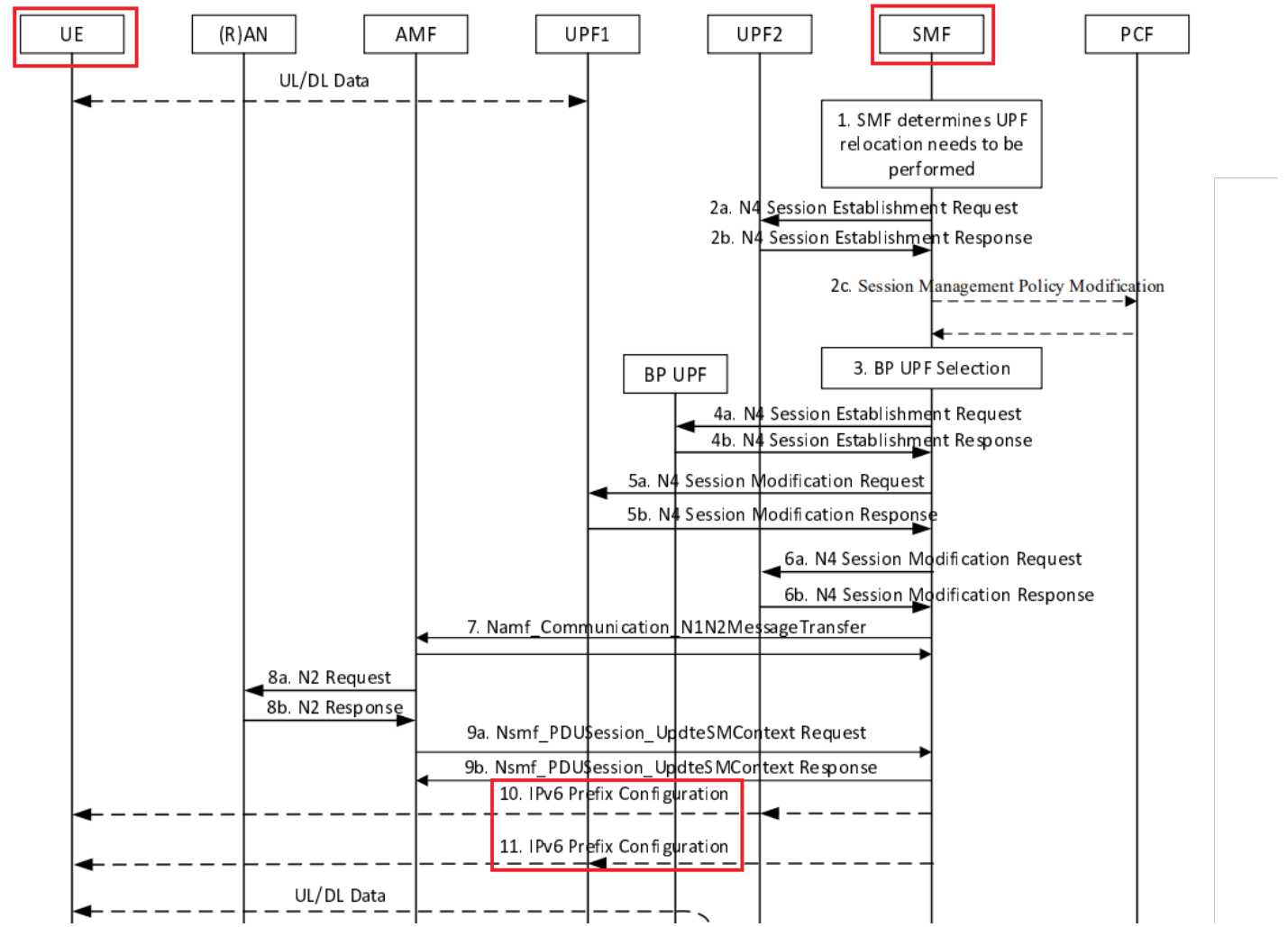
stationary device covering the second wireless range; and **Col 5: lines 47-63** *When the mobile device moves away from the first wireless range and enters the second wireless range covered by the second stationary device, the mobile device registers itself to the second stationary device, and the second stationary device assigns a second identification information (e.g., guest IP address) to the mobile device. Since the mobile device is associated with both the first identification information and the second identification information, the second stationary device in one implementation can store the first identification*	network (SMF) accesses new IPv6 prefix/address (second identification) corresponding to the new point of attachment (stationary device) and new PDU Session Anchor wherein the new IP address and old IP address are associated to the same UE. When UE leaves first wireless range provided by the base station and connects to the new base station with a second wireless range, new IP address is allocated to UE using new PDU session anchor. 5.6.9.2.3 SSC Mode 3 For PDU Session of SSC mode 3, the network allows the establishment of UE connectivity via a new PDU Session Anchor to the same data network before connectivity between the UE and the previous PDU Session Anchor is released. When trigger conditions apply, the network decides whether to select a PDU Session Anchor UPF suitable for the UE's new conditions (e.g. point of attachment to the network). In this Release of specification, SSC mode 3 only applies to IP PDU Session type and to any access type. In the case of a PDU Session of IPv4 or IPv6 or IPv4v6 type, during the procedure of change of PDU Session Anchor, the following applies: a. For a PDU Session of IPv6 type, the new IP prefix anchored on the new PDU Session Anchor may be allocated within the same PDU Session (relying on IPv6 multi-homing specified in clause 5.6.4.3), or b. The new IP address and/or IP prefix may be allocated within a new PDU Session that the UE is triggered to establish. After the new IP address/prefix has been allocated, the old IP address/prefix is maintained during some time indicated to the UE via NAS signalling (as described in TS 23.502 [3] clause 4.3.5.2) or via Router Advertisement (as described in TS 23.502 [3] clause 4.3.5.3) and then released. If a PDU Session of SSC mode 3 has multiple PDU Session Anchors (i.e., in the case of multi-homed PDU Sessions or in the case that UL CL applies to a PDU Session of SSC mode 3), the additional PDU Session Anchors may be released or allocated. https://www.etsi.org/deliver/etsi_ts/123500_123599/123501/15.02.00_60/ts_123501v150200p.pdf

information, the second identification information, and the relationship of the two identification information (e.g., both are for the same mobile device) to the database. *In step 305, the first stationary device obtains the second identification information, which is associated with the first identification information, from the database and utilizes the second identification information in a signaling protocol to maintain a communication session with the mobile device.*	For an UE that is registered over Non-3GPP access, a change of the point of attachment (e.g. change of WLAN AP) shall not lead the UE to perform a Registration Update procedure. https://www.etsi.org/deliver/etsi_ts/123500_123599/123501/15.02.00_60/ts_123501v150200p.pdf 4.3.5.3 Change of SSC mode 3 PDU Session Anchor with IPv6 Multi-homed PDU Session Clause 4.3.5.3 describes a procedure for service continuity with SSC mode 3 that uses the multi-homed PDU Session described in TS 23.501 [2] clause 5.6.4.3. In this case the SMF prepares a new PDU Session Anchor first and then notifies the UE of the existence of a new IP prefix, as depicted in figure 4.3.5.3-1. This procedure is applicable only to PDU Sessions of IPv6 type. https://www.etsi.org/deliver/etsi_ts/123500_123599/123502/15.02.00_60/ts_123502v150200p.pdf



https://www.techplayon.com/ssc-modes-session-and-service-continuity-in-5g/

	▪ **SSC Mode 3:** With **SSC mode 3**, the network preserves the connectivity provided to the **UE** but there may be some impact during certain procedures. For example, the **IP address** allocated to the UE will be updated if the **Anchor UPF** changes but the change procedure will ensure that **connectivity** is preserved, i.e. connectivity towards the new Anchor UPF is established before releasing the connection to the **old Anchor UPF**. The **3GPP** release 15 only supports **Mode 3** for IP based **PDU Sessions**. https://www.techplayon.com/ssc-modes-session-and-service-continuity-in-5g/ With SSC mode 3, network ensures that UE does not lose connectivity by making a new connection before breaking the existing one to allow service continuity. In this mode UE, IP address is not preserved as PDU session anchor changes. The network may select a PDU Session Anchor UPF depending on UE's new condition. One of the main benefits of this mode is to have the flexibility to select another UPF based on UE's new condition for the newly created session whereas still maintaining existing sessions via earlier UPF. http://4g5gworld.com/blog/session-and-service-continuity-evolution-5g-networks



https://www.etsi.org/deliver/etsi_ts/123500_123599/123502/15.02.00_60/ts_123502v150200p.pdf

	The UE has an established PDU Session with the PDU Session Anchor (i.e. UPF1 in Figure 4.3.5.3-1). The PDU Session's User Plane involves at least the (R)AN and the PDU Session Anchor. 1. At some point the SMF decides to allocate to the PDU Session the PDU Session with a new PDU Session Anchor. 2. The SMF selects a new UPF and using N4 configures the UPF as a new PDU Session Anchor (i.e. UPF2 in Figure 4.3.5.3-1) of the multi-homed PDU Session. In the process a new IPv6 prefix (IP@2) is allocated for the PDU Session. If the PCF has subscribed to the IP allocation/release event, the SMF performs a Session Management Policy Modification procedure as defined in clause 4.16.5 to provide the new allocated IPv6 prefix to the PCF. https://www.etsi.org/deliver/etsi_ts/123500_123599/123502/15.02.00_60/ts_123502v150200p.pdf
maintaining the communication session with the mobile device by utilizing the second identification information in a signaling protocol.	The accused instrumentality discloses maintaining the communication session (e.g., maintaining session connectivity) with the mobile device (e.g., UE) by utilizing the second identification information (e.g., new IP address/IP prefix) in a signaling protocol (e.g., NAS signaling protocol). In the procedure of change of a PDU Session Anchor, a new IP address/IP prefix is allocated. 5G NAS-SM (Session Management) (signaling protocol) is responsible for setting up and managing the PDU session for user-plane connectivity between UE and Data Networks. The 3GPP specifications keep Session Management design flexible to support diverse 5G use cases e.g., Session Management supports different PDU Session protocol types, different options for how to handle session and service continuity, as well as a flexible User Plane architecture. The main function of the NAS protocols is to support session management procedures to establish and maintain data connectivity (e.g., maintaining the communication session with the mobile device) between the UE and the data network.

	5.6.9.2.3 SSC Mode 3 For PDU Session of SSC mode 3, the network allows the establishment of UE connectivity via a new PDU Session Anchor to the same data network before connectivity between the UE and the previous PDU Session Anchor is released. When trigger conditions apply, the network decides whether to select a PDU Session Anchor UPF suitable for the UE's new conditions (e.g. point of attachment to the network). In this Release of specification, SSC mode 3 only applies to IP PDU Session type and to any access type. In the case of a PDU Session of IPv4 or IPv6 or IPv4v6 type, during the procedure of change of PDU Session Anchor, the following applies: a. For a PDU Session of IPv6 type, the new IP prefix anchored on the new PDU Session Anchor may be allocated within the same PDU Session (relying on IPv6 multi-homing specified in clause 5.6.4.3), or b. The new IP address and/or IP prefix may be allocated within a new PDU Session that the UE is triggered to establish. After the new IP address/prefix has been allocated, the old IP address/prefix is maintained during some time indicated to the UE via NAS signalling (as described in TS 23.502 [3] clause 4.3.5.2) or via Router Advertisement (as described in TS 23.502 [3] clause 4.3.5.3) and then released. If a PDU Session of SSC mode 3 has multiple PDU Session Anchors (i.e., in the case of multi-homed PDU Sessions or in the case that UL CL applies to a PDU Session of SSC mode 3), the additional PDU Session Anchors may be released or allocated. https://www.etsi.org/deliver/etsi_ts/123500_123599/123501/15.02.00_60/ts_123501v150200p.pdf

5G PDU Session and Its Types

BY AUTHOR · PUBLISHED NOVEMBER 28, 2021 · UPDATED OCTOBER 31, 2023

Introduction

In **5G** System, the one of the key task for the networ is to provide the **connectivity** to UE towards a Data Network (DN) know as **5G DNN** which is similar to **4G APN**. The Data Network (DNN) can be **Internet**, or an **IMS** or any other DNN dedicated to a **Industry** or Factory .

5G NAS-SM (Session Management) is responsible for setting up and managing the **PDU session** for user-plane connectivity between UE and Data Networks. The **3GPP** specifications kept Session Management design flexible to support diverse **5G use cases** e.g. Session Management supports different **PDU Session** protocol types, different options for how to handle ***session and service continuity***, as well as a flexible **User Plane** architecture.

https://www.techplayon.com/5g-pdu-session-and-its-types/

	4.1 Overview The non-access stratum (NAS) described in the present document forms the highest stratum of the control plane between UE and AMF (reference point "N1" see 3GPP TS 23.501 [8]) for both 3GPP and non-3GPP access. Main functions of the protocols that are part of the NAS are: - support of mobility of the user equipment (UE) including also common common procedures such as authentication, identification, generic UE configuration update and security control mode procedures; - support of session management procedures to establish and maintain data connectivity between the UE and the data network; and - NAS transport procedure to provide a transport of SMS, LPP, UE policy container, SOR transparent container and UE parameters update information payload. https://www.etsi.org/deliver/etsi_ts/124500_124599/124501/15.02.01_60/ts_124501v150201p.pdf